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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,812	12/11/2000	Mark A. Peloquin	AUS9-2000-0529-US1	2076
35525	7590	03/24/2004	EXAMINER	
DUKE W. YEE CARSTENS, YEE & CAHOON, L.L.P. P.O. BOX 802334 DALLAS, TX 75380			TRUONG, LECHI	
			ART UNIT	PAPER NUMBER
			2126	6
DATE MAILED: 03/24/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Page

Office Action Summary

Applicati n N .

09/734,812

Applicant(s)

PELOQUIN ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claim 1-31 are presented for examination.
2. The cross reference related to the application cited in the specification must be updated(i.e update the relevant status with PTO serial numbers or patent numbers where appreciate, on page 1, ln 6; The entire specification should be so revised)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 6, 8, 10- 17, 21, 22, 24, 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kedem et al (US. Patent 5,968,184).
4. As to claim 1, Kedem teaches the invention substantially as claimed including a method for providing feature in a logical volume (logical volume, col 3, ln 1-10 and ln 45-60), comprising: a set of feature plug-in modules (the commands/ a maintenance command, col 2, ln 15-21/ col 3, ln 10-16), selecting (identify to whether the command is to be applied to every logical volume of the physical device, col 4, ln 10-22), a first plurality of feature plug-in modules (the command, col 3, ln 1-67), ordering (put commands are put at 110 into the commence queue for each of the physical disk drive elements. Thereafter, the commands are executed in order (col

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3, ln 45-67), applying (applied, col 4, ln 10-22), a first volume (the first logical volume, col 4, ln 10-22). Kedem does not explicit teach step of the loading. However, Kedem teaches the step of receiving memory commands from the various host (col 3, ln 5-12). It would have been obvious to one the ordinary skill in the art at the time the invention was made to have included the loading step in Kedem's because the received commands would deliver the data associated with those commands to the appropriate disk drive elements.

5. **As to claim 5**, Kedem teaches a user (the user, col 3, ln 45-67), the first plurality of feature plug-in modules (a maintenance command, col 3, ln 1-67), the selection (an optional switch (Sw1), col 3, ln 45-67).

6. **As to claim 6**, Kedem teaches classification information (LV, SMI, FE, col 4, ln 10-22, Fig. 4), feature plug-in module (the command, col 4, ln 10-22), a class for each feature plug-in module (a logical volume to be affected and a option switch (Sw1) indicating whether the command should also be applied to each of the other logical volumes of the physical device, col 3, ln 45-67), ordering the first plurality of feature plug-in modules based on the classification information (a separate group switch can be used in the command to identify either groups of physical disk devices to which the command is to be applied, col 3, ln 45-67).

7. **As to claim 8**, Kedem teaches attribute information (a separate groups switch can be used in the command, col 3, ln 45-67), a feature plug-in modules (command, col 3, ln 45-60), ordering (identifying which command is belong to each logical volume, col 3, ln 45-60).

8. **As to claim 10**, Kedem teaches user (the user, col 3, ln 45-67), selection information (an optional Sw1, col 3, ln 45-67), ordering (identifying which command is belong to each logical volume base on Sw1, col 3, ln 45-60).

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9. **As to claim 11**, Kedem teaches a feature stack (the command stack, col 3, ln 60-67).
10. **As to claim 12**, Kedem teaches a set of feature plug-in modules (the commands/ a maintenance command, col 2, ln 15-21/ col 3, ln 1-67), selecting (identify to whether the command is to be applied to every logical volume of the physical device, col 4, ln 10-22), a second plurality of feature plug-in modules (the command, col 3, ln 1-67), ordering (put commands are put at 110 into the commence queue for each of the physical disk drive elements. Thereafter, the commands are executed in order (col 3, ln 45-67), applying (applied, col 4, ln 10-22), a second volume (the logical volume, col 3, ln 1-67).
11. **As to claim 13, 14**, Kedem teaches the second plurality of feature plug-in module, the first plurality of feature plug-in module (the commands, col 3, ln 1-67), the second and first of feature plug-in module are order differently (the commands are executed in order, col 3, ln 60-67).
12. **As to claim 15**, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above.
13. **As to claim 16**, Kedem teaches a call through an application program interface (user specifies maintenance command, Fig. 3, action (apply, col 3, ln 1-67), the volume (the logical volume, col 3, ln 1-67), feature plug-in module (command, col 3, ln 1-67).
14. **As to claims 17, 21, 22, 24, 26, 27, 28, 29, 30, 31**, they are apparatus claims of claims 1-6, 8, 10, 11, 15, 16; therefore, they are rejected for the same reason as claims 1, 5, 6, 8, 10, 11, 15, 16 above.

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15. Claims 2-4, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kedem et al (US. Patent 5,968,184) in view of Admitted Prior Art (APA).

16. As to claim 2, 3, 4, Kedem teaches a logical volume manager data (a switch (SWI), col 4, ln 10-22, the data associated with those command, col 3, ln 1-21), associated with at least one X (the first volume LV, col 4, ln 16-22, Fig. 4), selecting (identify, col 4, ln 10-22). Kedem does not teach X as aggregate, partition. However, APA teaches aggregate, partition (aggregate, partition, page 2, ln 5-25).

17. It would have been obvious to one of the ordinary skill in the art at the time invention was made to combine the teaching of Kedem and APA because APA's aggregate and partition would make the logical volume manage plug-in more consistent.

18. As to claims 18-20, they are apparatus claims of claims 2-4; therefore, they are rejected for the same reason as claims 2-4 above.

Allowable Subject Matter

19. Claims 7, 9, 23, 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312. The examiner can normally be reached on 8 - 5.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

March 18, 2004


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